

CLAIMS

1. A mechanical return blocking device comprising two cooperating and mutually displaceable part :

5 - a first part wherein parallel to a longitudinal axis at least one set of tracks comprising a first track and a second track is provided, and that the second track comprises one or more retaining members and a sliding guide arranged at one end of the second track;

10 - a second cooperating part wherein a leg member comprising an engagement section for engagement with the tracks provided on the first part is provided, and that said leg member is biased towards the first part and that the engagement section is adapted to travel in the direction of the longitudinal axis;
and further that the retaining members allows the engagement section of the leg member to move in a first direction towards the sliding guide but blocks movement in the opposite second direction and that the engagement section of the leg member slides on the sliding guide, whereby the engagement section and thereby the leg member is directed from the second track to the first track.

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2. A blocking device according to claim 1, characterised in that each retaining member comprises an inclined sliding surface having a predetermined length along which the engagement section will slide, and a step in the shape of a surface arranged at a sharp angle in relation to the sliding surface, said step connecting the top of one inclined sliding surface and the bottom of the next sliding surface, such that a saw-tooth configuration is created, and such that the engagement section of the leg will be retained from movement in one direction by said step.

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3. A blocking device according to claim 1 or 2, characterised in that at least a part of a side surface facing the first track of each retaining member is arranged at a shallow angle in respect to the longitudinal axis of the device, such that the inclined sliding surface is narrowest in the end of the first travelling direction of the engagement section.

4. A blocking device according to claim 2 or 3, characterised in that the inclined sliding surface overlaps an adjacent inclined sliding surface, and that the inclined sliding surface tapers perpendicular to the longitudinal axis such that the top is narrower than the bottom of the sliding surface, whereby the step at the bottom is narrower than the adjacent sliding surface at their connection point.

5. A blocking device according to claim 1, 2, 3 or 4, characterised in that the leg member is pivotally fastened in the end opposite the engagement section, and that the first part comprising the at least one set of tracks has a corresponding circular configuration arranged at a distance, whereby the engagement section may engage the tracks.

10 6. A blocking device according to any of claims 1 to 5, characterised in that the width of the sliding guide perpendicular to the longitudinal axis at its widest section is at least as wide as the retaining members step.

15 7. A blocking device according to any preceding claim, characterised in that all parts of the device are made from a plastic material, preferably a mouldable material, and still further by an injection moulding process.

20 8. A blocking device according to any preceding claim wherein one or both of the mutually displaceable parts are relatively biased, for example by spring means, such that when the device is not operating, the engagement means will be engaging a point on the sliding guide.

25 9. Device, such as a manually operated inhalation device in which the dispensation of a medicament dose from a canister arranged in the device is activated by depressing a button or lever, which button or lever is further connected to a mechanically return blocking device where said device comprises two cooperating and mutually displaceable parts :

- a first part wherein parallel to a longitudinal axis at least one set of tracks comprising a first track and a second track is provided, and that the second track comprises

one or more retaining members and a sliding guide arranged at one end of the second track;

- a second cooperating part wherein a leg member comprising an engagement section for engagement with the tracks provided on the first part is provided, and that said leg member is biased towards the first part and that the engagement section is adapted to travel in the direction of the longitudinal axis;

5 and further that the retaining members allows the engagement section of the leg member to move in a first direction towards the sliding guide but blocks movement in the opposite second direction and that the engagement section of the leg member slides on the sliding guide, whereby the engagement section and thereby the leg member is directed from the second track to the first track.

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15 10. Device according to claim 9, characterised in that the mutually displaceable parts are formed as integral parts of the device, such that the first or second part is integral with part of the button arrangement and the other part is integral with a non moving part of the device.

20 11. Device according to claims 9 or 10, characterised in that the engagement sections' travel between at least two adjacent retaining means or the retaining means and the sliding guide corresponds to the activation of one event, where an event may be the dispensation of a medicament dose and/or the input for a dose counting device.

12. Device according to claim 9, 10 or 11, characterised in that the mechanical return blocking device is moulded at the same time as the device.